Manitoba Neuroscience Network

2015/2016 Seminar & Visiting Speaker Series

Friday, December 11th, 2015| 3:00 p.m.

Yu Tian Wang

Professor
Department of Medicine, Division of Neurology
Chair in Stroke Research
University of British Columbia

TOPIC: Peptide-based research tools and therapeutics in the post-genome era

Location: Theatre C, Bannatyne Campus

Brief Bio:

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
Shandong Univ. Med. School, Jinan, P.R. China	B.M.	12/82	Medicine
Shandong Univ. Med. School, Jinan, P.R. China	M.Sc.	12/85	Physiology
Memorial University, Newfoundland, Canada	Ph.D.	08/92	Neuroscience

Research Focus:

I have a long-standing research interest in understanding the molecular mechanisms responsible for regulatingthe function and intracellular trafficking of neurotransmitter receptors critical for brain functions such as learning, memory and cognition, and investigating the manner by which these mechanisms may be altered in central nervous disease processes. My goal is to be able to treat central nervous disorders such as stroke, drug addiction, and schizophrenia by designing new therapeutics that specifically target these receptors and their pathways. With particular relevance to this project, we have made a significant impact on stroke research. We discovered that NMDA receptor NR2A and NR2B subunits have respective roles in promoting cell survival and cell death (J. Neurosci. 27:2846, 2007). We have characterized the molecular steps downstream of the NR2B death pathway, and also developed several specific inhibitors to disrupt this pathway and demonstrated their therapeutic potentials in reducing brain damage following stroke (Science 298:846, 2002; JBC 279:41267, 2004; Nature Med. 15:1399, 2009; J. Neurosci. 33:7997, 2013). To translate these basic scientific discoveries into potential therapeutics for brain dysfunctions, I founded, along with five other scientists/clinicians, the NoNO Inc. in Toronto that has recently completed a successful phase 2 clinical trial, demonstrating for the first time a clinically effective neuroprotectant NA-1 (Tat-NR2B9c) in reducing ischemic brain damage (Lancet Neurol 11:942, 2012). Our research expertise spans functionally characterizing synaptic plasticity, biochemically mapping protein-protein interaction sites, and designing specific peptides for use in models of CNS disorders.

For more information, contact the MNN Office at
(T) 235.3939 or email: mnn@sbrc.ca

Partners:

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Hôpital St-Boniface Hospital Recherche • Research
Division of Neurodegenerative Disorders

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